

## Claims

- 5 1. A method for reducing taint in animals, said method comprising feeding to an animal a chicory root product during at least one day prior to slaughtering the animal.
- 10 2. The method of claim 1, wherein the chicory root product is fed to the animal for at least two days, for example 3 days, such as at least one week, for example at least 1.5 weeks, such as at least 2 weeks, preferably at least 3 weeks, such as at least 4 weeks, for example at least 5 weeks, such as at least 6 weeks, for example at least 7 weeks, such as at least 8 weeks, for example at least 9 weeks, such as at least 10 weeks, for example at least 15 weeks, such as at least 20 weeks.
- 15 3. The method of claim 1-2, wherein the chicory root product is fed to the animal substantially until slaughter.
- 20 4. The method according to any of the preceding claims, wherein the chicory root product is fed to the animal daily.
- 25 5. The method of claim 4, wherein the chicory root product is fed to the animal at least one time a day such as several times daily, such as 2 times, 3 times, 4 times, 5 times, or more than 5 times.
- 30 6. The method according to any of the preceding claims, wherein the chicory root product part of the ration of the animal is at least 2.5 % on a daily energy basis.
- 35 7. The method of claim 6, wherein the chicory root product part of the ration of the animal is at least 5 % on a daily energy basis.
8. The method of claim 6, wherein the chicory root part comprises at least 10 % of the ration, more preferably at least 15%, more preferably at least 20%, more preferably at least 25%, more preferably at least 30 %, for example at least 35%, such as at least 40%, for example at least 50%, such as at least 60%, for example at least 75%, such as at least 90%, for example substantially 100%.

9. The method according to any of the preceding claims, wherein the animal is a ruminant, such as cow, sheep, goat, buffalo.
- 5 10. The method according to any of the preceding claims 1 to 8, wherein the animal is a monogastric species, such as horse, pig, poultry, dog, and cat.
11. The method according to claim 10, wherein the monogastric species is a pig.
- 10 12. The method according to claim 11, wherein the pig is a male pig.
13. The method according to claim 12, wherein the pig is an entire male pig.
14. The method according to claim 11-13, wherein weight of the pig is from 25 to 300 kg, preferably as from 55 to 160 kg.
- 15 15. The method according to any of the preceding claims, wherein the species of Chicory is *Cichorium intybus* L.
- 20 16. The method according to any of the preceding claims, wherein the chicory roots contain at least 5% inulin, more preferably at least 10% inulin, more preferably at least 15 % inulin, more preferably at least 20 % inulin, such as at least 25% inulin, for example at least 30 % inulin.
- 25 17. The method according to any of the preceding claims, wherein the chicory roots contain at least 5% FOS, more preferably at least 10% FOS, more preferably at least 15 % FOS, more preferably at least 20 % FOS, such as at least 25% FOS, for example at least 30 % FOS.
- 30 18. The method according to any of the preceding claims, wherein the chicory root product comprises a silage product of chicory roots, such as a silage product of essentially whole chicory roots.
- 35 19. The method according to any of the preceding claims, wherein the chicory root product comprises a fermented product of chicory roots.

- 5 20. The method according to any of the preceding claims, wherein the chicory root product comprises a dried product of chicory roots, such as a dried product of essentially whole chicory roots.
21. The method according to any of the preceding claims, wherein the chicory root product is a disintegrated product, such as a powder, flakes, pulp, slices, flour, pellets.
- 10 22. The method according to any of the preceding claims, wherein the chicory root product comprises fresh chicory roots.
- 15 23. The method according to any of the preceding claims, wherein the chicory root product comprises a fraction and/or an extract of chicory roots.
24. The method according to claim 23, wherein the fraction and/or extract comprises an inulin fraction and a low molecular weight fraction comprising coumarins and/or sesquiterpenes.
- 20 25. A method for reducing the skatole content in animals, said method comprising feeding to a animal a chicory root product for at least one day such as at least two days prior to slaughtering.
- 25 26. The method of claim 25, wherein the skatole content of blood is reduced by at least 25%, more preferably at least 40%, more preferably at least 50%, more preferably at least 75%, more preferably at least 80%, more preferably at least 90%, more preferably at least 95%, more preferably at least 98%, more preferably to substantially 0.
- 30 27. The method of claim 25, wherein the skatole content of blood and/or backfat is reduced to below the human sensory threshold.
- 35 28. The method of claim 25, wherein the skatole content of backfat is reduced by at least 25%, more preferably at least 40%, more preferably at least 50%, more preferably at least 75%, more preferably at least 80%, more preferably at least

90%, more preferably at least 95%, more preferably at least 98%, more preferably to substantially 0.

5 29. The method of claim 25-28, further including the features of claim 2 to 24.

30. A method for reducing the androstenone content in meat and/or fat and/or blood said method comprising feeding to an animal a chicory root product for at least one day such as at least two days.

10 31. The method of claim 30, wherein the androstenone content is reduced by at least 10%, more preferably at least 25%, more preferably at least 40%, more preferably at least 50%, more preferably at least 75%, more preferably at least 80%, more preferably at least 90%, more preferably at least 95%, more preferably at least 98%.

15 32. The method of claim 30-31, wherein the androstenone content in meat and/or fat is reduced to below the human sensory threshold.

20 33. The method of claim 30-32, wherein the animal is subsequently slaughtered.

34. The method of claim 30-33, further including the features of claim 2 to 24.

25 35. A method for improving the sensory characteristics comprising odour, flavour, taste and/or aftertaste of meat from a human sensory perspective, said method comprising feeding to an animal a chicory root product for at least one day such as at least two days prior to slaughter.

30 36. The method of claim 35, wherein the improvement of sensory characteristics is a reduction of boar taint comprising reducing Piggy/Animal-odour and/or Piggy/Animal-flavour to an acceptable level from a human sensory perspective.

35 37. The method of claim 35, wherein the improvement of sensory characteristics is a reduction of boar taint comprising increasing acceptable sensory characteristics selected from the group of Fresh cooked pork meat like-odour and flavour, Sweet meaty-odour, Sweet-taste, Umami-taste, Meat/Gamey-odour and flavour,

Herby-flavour, Spicy-flavour and Heat/spicy aftertaste, Nutty-odour, Metallic-flavour, Meat/Gamey-flavour, Herby-flavour, Spicy-flavour, Lactic/fresh sour-flavour.

- 5 38. The method of claim 35, wherein the improvement of sensory characteristics is a reduction of lipid-oxidation comprising increasing acceptable sensory characteristics selected from the group of Cardboard-odour and flavour and Linseed oil-odour.
- 10 39. The method of claim 35, wherein the improvement of sensory characteristics comprises reduction of sensory characteristics selected from the group of: Piggy/Animaly-odour and flavour, Manure/Stable-odour and flavour, Livestock/Barney-flavour, Cooked Liver/Organy-flavour, Musty-odour, Urine-odour, Sweat-odour, Flat Bitter-aftertaste, White pepper-flavour,,  
15 Chemical/medicinal-aftertaste, Unacceptability.
40. The method of claim 35, wherein the improvement of sensory characteristics comprises improving sensory characteristics such that Hardness-texture is decreased and Tenderness and Juiciness texture are increased and are  
20 involved in improving acceptability
41. The method of claim 35-40, further including the features of claim 2 to 24.
- 25 42. A method for reducing malodour in the environment, said method comprising feeding a chicory root product to animals for at least one day such as at least two days.
43. The method according to claim 42, wherein the reduction is caused by a relative reduction in skatole and/or p-cresole and/or indole in the gastrointestinal tract.  
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44. The method according to claim 43-43, wherein the reduction is caused by a relative increase in the amount of 2-pentanone and/or ethylbutyrate and/or propylpropionate and/or propylbutyrate and/or butanoic acid 2-methyl-ethylester in the gastrointestinal tract.  
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45. The method according to claim 42-44, wherein the animal is a ruminant such as cattle, buffalo, sheep, goat.
- 5 46. The method according to claim 42-44, wherein the animal is a monogastric species.
47. The method of claim 46, wherein the monogastric animal is a furred animal, such as mink, fox, mouse, cat, muskrat, rabbit, hare, wolf, dog.
- 10 48. The method of claim 46, wherein the monogastric animal is an animal used for meat, such as pig, poultry, rabbit, hare, more preferably wherein the monogastric animal is a pig.
- 15 49. The method according to any of the preceding claims 42 to 48, wherein the malodour is stable malodour and the animal is kept in a stable.
50. The method according to claim 49, wherein the animal is kept in the stable for at least 8 hours a day.
- 20 51. The method according to any of the preceding claims 42 to 50, wherein the malodour is manure malodour and the manure originates from animals fed with the chicory root product.
- 25 52. The method of claim 42 to 51, further including the features of claim 2 to 24.
53. A method for reducing the amount of infections of the gastrointestinal tract in a non-human animal, said method comprising feeding to a non-human animal a chicory root product for at least one day such as at least two days.
- 30 54. The method of claim 53, wherein the infections are parasites.
55. The method of claim 54, wherein the parasites are worms.
- 35 56. The method of claim 54, wherein the reduction is a reduction of the number of eggs in the animal faeces.

57. The method of claim 53, wherein the infections are microbiological infections selected from *Coli*, *Salmonella*, *Campylobacter* and *Yersinia*
- 5 58. The method of claim 55, wherein the infections are worms selected from *Ascaris suum*, *Oesophagostomum dentatum*, *Oesophagostomum quadrispinulatum*, *Oesophagostomum brevicaudum*, *Oesophagostomum granatensis*, *Oesophagostomum georgianum*, *Hyostromylus rubidus*, *Trichuris suis*, and *Strongyloides ransomi* and *Trichinella* spp.
- 10 59. The method of claim 53 to 58, further including the features of claim 2 to 24.
60. Use of chicory roots as a feed product for "grown up" (>> 7 weeks) pigs.
- 15 61. Use of chicory roots for preparing a feed product for "grown up" pigs.
62. Use of chicory roots for preparing a product for the prevention of boar taint.
63. Use of chicory roots for preparing a product for reduction of skatole content in pigs, in particular in boar meat and fat.
- 20 64. Use of chicory roots for preparing a product for reduction of androstenone in pigs.
- 25 65. Use of chicory roots for preparing a product for reduction or prevention of gastrointestinal tract infections in pigs.
66. The use according to claim 60-65 further including the features of claim 2-24.
- 30 67. Use of a method for reducing taint in animals, said method comprising feeding to a male animal a chicory root product during at least one day such as at least two days prior to slaughtering the animal.
- 35 68. The use of the method of claim 67, further including the features of claim 2-24.

69. A chicory root product comprising components from chicory roots, where said components comprises at least inulin, one or more low molecular sugars and one or more secondary metabolites.
- 5 70. The chicory root product according to claim 69, wherein said low molecular sugars are selected from the group of glucose, fructose, sucrose, maltose, maltotriose, maltotetraose, fructan (tri to octasaccharides).
- 10 71. The chicory root product according to claim 69 to 70, wherein said secondary metabolites are selected from the group of terpenes, phytosterols, polyamines, coumarins and flavonoids.
- 15 72. The chicory root product according to claim 69 to 71, wherein said secondary metabolites are selected from the group of Sesquiterpene lactones such as 8-Deoxylactucin, crepidiaside, lactucin, lactupicrin, crepidraside, 11- $\beta$ -13-dihydrolactucin, picriside, sonchuside A, sonchuside C, cichoriolide A, cichoriosides A, cichorioside B and cichorioside C; Phytosterols such as Sitosterol, stigmasterol, and campesterol; Coumarines such as Esculetin (=aesculetin), esculin (the glucon of esculetin), cichoriin-6'-p-hydroxyphenyl acetate and cichoriin; Flavonoids such as Luteolin 7-glucuronide, quercetin 3-galactoside, quercetin 3-glucuronide, kaempferol 3-glucoside, kaempferol 3-glucuronide, isorhamnetin 3-glucuronide; Anthocyanins such as Cyanidin 3-O- $\beta$ -(6-o-malonyl)-D-glucopyranoside and four delphinidin derivatives; Caffeic acid derivatives such as Caffeic acid, chicoric acid, and chlorogenic acid; Polyamines (biogenic amines) such as Putrescine, spermidine, spermine.
- 20 73. The chicory root product according to claim 69 to 72, wherein said components from chicory comprises at least 50 % of the chicory root product.
- 30 74. The chicory root product according to claim 69 to 73, wherein said chicory roots are dried.
- 35 75. The chicory root product according to claim 69 to 74, wherein said chicory roots are fractionated.



76. A feed product comprising a chicory root product according to claim 69 to 75.
77. A meat taste increasing product comprising components from chicory roots.
- 5 78. A boar taint decreasing product comprising components from chicory roots.
79. A skatole-inhibiting product comprising components from chicory roots.
80. A parasite inhibiting product comprising components from chicory roots.
- 10 81. A malodour-decreasing product comprising components from chicory roots.
82. Use of a chicory root product as defined in claim 69 to 75.
- 15 83. Use of a chicory root product for the manufacture of a meat taste increasing product.
84. The use according to claim 83 wherein said meat taste increasing product is further used according to any of claim 1 to 58.
- 20 85. Use of a chicory root product for the manufacture of a boar taint decreasing product.
86. The use according to claim 85 wherein said boar taint decreasing product is further used according to any of claim 1 to 58.
- 25 87. Use of a chicory root product for the manufacture of a parasite inhibiting product.
88. The use according to claim 87 wherein said parasite inhibiting product is further used according to any of claim 1 to 58.
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